

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 117 AND LONGDRAFT ROAD IN MONTGOMERY COUNTY. MD 117 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA FOUR-PHASE, SEMI-TRAFFIC-ACTUATED MODE. MD 117 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY AND LONGDRAFT ROAD THROUGH MOVEMENTS WILL RUN CONCURRENTLY. THERE IS A PEDESTRIAN PHASE FOR THE NORTH AND SOUTH LEG OF THE INTERSECTION AND THERE IS AN ALTERNATE PEDESTRIAN PHASE FOR THE EAST LEG OF THE INTERSECTION.

EQUIPMENT LIST FOR CONTRACT NO. XY2385185

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

CATEGORY	CODE	QUANTITY	UNIT	DESCRIPTION
	900000	5	SF	SHEET ALUMINUM GROUND MOUNTED SIGN
		1	EA	R4-7 (24" x 30")
	900000	176	SF	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN
		2	EA	M1-5(6) (30" x 48") POLE MOUNTED
		2	EA	M1-5(6) (48" x 72") POLE MOUNTED
		8	EA	D-3(1) (VAR. x 16") MAST ARM MOUNTED
		1	EA	R3-5(R) (30" x 36") MAST ARM MOUNTED
		6	EA	R10-3(1) (9" x 15") POLE MOUNTED
		1	EA	W9-2(4)L (30" x 42") MAST ARM MOUNTED
	900000	1	EA	CONTROLLER CABINET, SIZE "S" W/CTRL, VIDEO INT. 1-8 CAM

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

CATEGORY	ITEM	QUANTITY	UNIT	DESCRIPTION
	100000	1	EA	MAINTENANCE OF TRAFFIC (PER INTERSECTION)
	201032	25	CY	CLASS 2 EXCAVATION
	203030	40	CY	TEST PIT EXCAVATION
	585621	420	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
	585625	90	LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
	585627	50	SF	WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
	585700	575	LF	REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH
	585705	50	SF	REMOVAL OF EXISTING PAVEMENT LETTERS, SYMBOLS, ARROWS AND NUMBERS
	600000	280	LF	TYPE A COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH
	655105	1070	SF	5 INCH CONCRETE SIDEWALK
	655120	60	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
	704345	25	SY	PLACING FURNISHED TOPSOIL 4 INCH DEPTH
	705500	25	SY	TURFGRASS ESTABLISHMENT
	800000	1	EA	2-WIRE APS CENTRAL CONTROL UNIT
	860284	33	EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
	800000	4	EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH LED ROADWAY LUMINAIRE
	800000	6	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
	800000	6	EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
	800000	4	EA	IP-BASED VIDEO DETECTION CAMERA & ANY LENGTH LEAD-IN CABLE
	800000	6	EA	5 FOOT OR 10 FOOT PEDESTAL POLE WITH BREAKAWAY COUPLINGS, FOUNDATION & GROUND ROD
	800000	3	EA	MAST ARM POLE & 38' MAST ARM ANY 'T' DIMENSION, FOUNDATION & GROUND ROD
	800000	1	EA	MAST ARM POLE & 50' MAST ARM ANY 'T' DIMENSION, FOUNDATION & GROUND ROD
	800000	1	EA	REMOVE & DISPOSE OF EXISTING SIGNAL EQUIPMENT (PER SIGNALIZED INTERSECTION LOCATION)
	800000	1	EA	POLE MOUNTED SPLICE CABINET
	800000	1	EA	INSTALL CONTROLLER AND CABINET BASE MOUNT (ANY SIZE) INCLUDING F&I FOUNDATION & GROUND ROD
	800000	310	LF	DISCONNECT, PULL-BACK & REROUTE CABLES
	800000	150	LF	1 - CONDUCTOR ELECTRICAL CABLE, NO. 2/0 AWG, TYPE THHN
	800000	150	LF	12-PAIR COMMUNICATION CABLE (SELF-SUPPORTING OR JELLY-FILLED/UNDERGROUND)
	800000	1	EA	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS & GROUND RODS
	800000	790	LF	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 12 AWG) (B,W,G) TYPE TC
	800000	300	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED OR SLOTTED
	800000	285	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
	800000	181	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
	800000	1	EA	THIRD PARTY CONCRETE TESTING (PER INTERSECTION)
	801130	1	EA	SQUARE PERFORATED TUBULAR STEEL SIGN POSTS
	801135	1	EA	SQUARE TUBULAR STEEL ANCHOR BASES
	802501	680	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
	805050	1	EA	WEATHER HEAD, 3 INCH
	810022	20	LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
	811001	3	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
	833060	45	LF	3 INCH DIAMETER POLYVINYL CHLORIDE CONDUIT, SCHEDULE 80, RISER
	861105	950	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
	861107	1080	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
	861108	1610	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

C. EQUIPMENT TO BE REMOVED.

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. ALL OTHER EXISTING SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL.

CONTACTS

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MD 117 ASSUMED TO RUN IN AN EAST/WEST DIRECTION

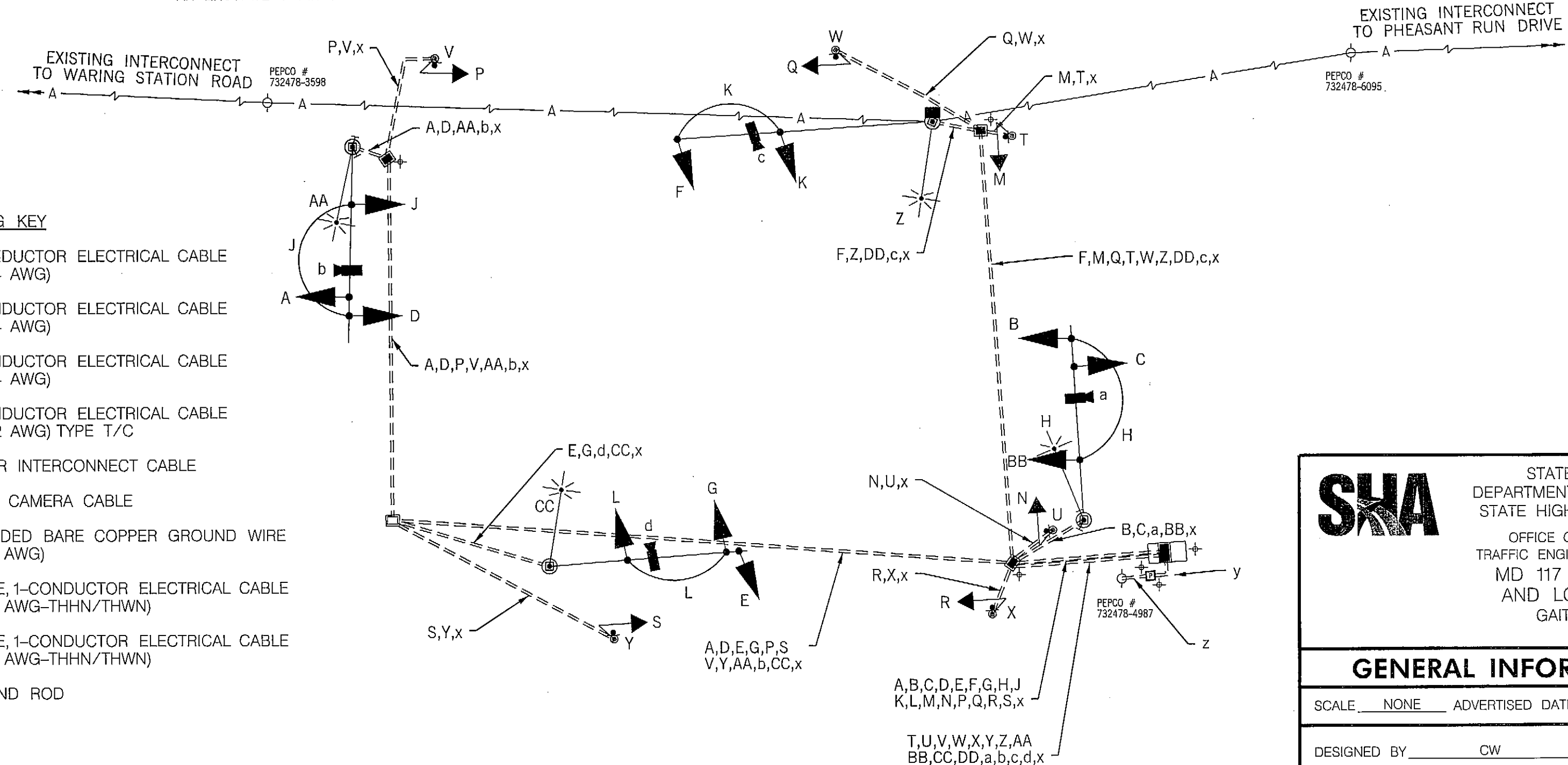
MD 117 ASSUMED TO RUN IN AN EAST/WEST DIRECTION

WIRING KEY

A,B,C D,E,F,G	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
H,J,K,L,M N,P,Q,R,S	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
T,U,V,W,X,Y	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
Z,AA,BB,CC	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TYPE T/C
DD	12 PAIR INTERCONNECT CABLE
a,b,c,d	VIDEO CAMERA CABLE
x	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
y	3 WIRE, 1-CONDUCTOR ELECTRICAL CABLE (NO. 8 AWG-THHN/THWN)
z	3 WIRE, 1-CONDUCTOR ELECTRICAL CABLE (NO. 2 AWG-THHN/THWN)
+	GROUND ROD

PHASE CHART																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)

PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	DW	DW	WK	WK	WK	WK
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	DW	DW
4 AND 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8 ALT	R	R	R	R	R	R	G	G	G	G	G	WK	WK	DW	DW	DW	DW
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	FL/DW	FL/DW	DW	DW	DW	DW
4 AND 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 117 (CLOPPER ROAD)
AND LONGDRAFT ROAD
GAITHERSBURG, MD

GENERAL INFORMATION PLAN SHEET

SCALE NONE ADVERTISED DATE 08/2013 CONTRACT NO. XY2385185

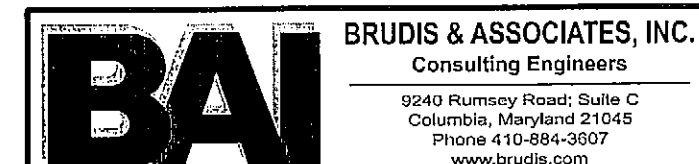
DESIGNED BY CW COUNTY MONTGOMERY

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F.A.P. NO. TOD NO.

TS NO. 1978-B-G1 DRAWING SG-3 OF 3 SHEET NO. 3 OF 3



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